

Interview Summary	Application No.	Applicant(s)	
	10/071,240	MAO ET AL.	
	Examiner	Art Unit	
	Aaron W. Carter	2624	

All participants (applicant, applicant's representative, PTO personnel):

- (1) Aaron W. Carter. (3) _____.
- (2) Gary D. Yacura (Reg. No. 35,416). (4) _____.

Date of Interview: 24 May 2006.

Type: a) ☒ Telephonic b) ☐ Video Conference
c) ☐ Personal [copy given to: 1) ☐ applicant 2) ☐ applicant's representative]

Exhibit shown or demonstration conducted: d) ☐ Yes e) ☒ No.
If Yes, brief description: _____.

Claim(s) discussed: 1, 18 and 28.

Identification of prior art discussed: N/A.


Agreement with respect to the claims f) ☒ was reached. g) ☐ was not reached. h) ☐ N/A.

Substance of Interview including description of the general nature of what was agreed to if an agreement was reached, or any other comments: Applicants agreed to an Examiner's Amendment which includes adding limitations from dependent claims 2, 27 and 30 into independent claims 1, 18 and 28, which puts the claims into condition for allowance.

(A fuller description, if necessary, and a copy of the amendments which the examiner agreed would render the claims allowable, if available, must be attached. Also, where no copy of the amendments that would render the claims allowable is available, a summary thereof must be attached.)

THE FORMAL WRITTEN REPLY TO THE LAST OFFICE ACTION MUST INCLUDE THE SUBSTANCE OF THE INTERVIEW. (See MPEP Section 713.04). If a reply to the last Office action has already been filed, APPLICANT IS GIVEN A NON-EXTENDABLE PERIOD OF THE LONGER OF ONE MONTH OR THIRTY DAYS FROM THIS INTERVIEW DATE, OR THE MAILING DATE OF THIS INTERVIEW SUMMARY FORM, WHICHEVER IS LATER, TO FILE A STATEMENT OF THE SUBSTANCE OF THE INTERVIEW. See Summary of Record of Interview requirements on reverse side or on attached sheet.

Examiner Note: You must sign this form unless it is an Attachment to a signed Office action.


Examiner's signature, if required

Summary of Record of Interview Requirements

Manual of Patent Examining Procedure (MPEP), Section 713.04, Substance of Interview Must be Made of Record

A complete written statement as to the substance of any face-to-face, video conference, or telephone interview with regard to an application must be made of record in the application whether or not an agreement with the examiner was reached at the interview.

Title 37 Code of Federal Regulations (CFR) § 1.133 Interviews

Paragraph (b)

In every instance where reconsideration is requested in view of an interview with an examiner, a complete written statement of the reasons presented at the interview as warranting favorable action must be filed by the applicant. An interview does not remove the necessity for reply to Office action as specified in §§ 1.111, 1.135. (35 U.S.C. 132)

37 CFR §1.2 Business to be transacted in writing.

All business with the Patent or Trademark Office should be transacted in writing. The personal attendance of applicants or their attorneys or agents at the Patent and Trademark Office is unnecessary. The action of the Patent and Trademark Office will be based exclusively on the written record in the Office. No attention will be paid to any alleged oral promise, stipulation, or understanding in relation to which there is disagreement or doubt.

The action of the Patent and Trademark Office cannot be based exclusively on the written record in the Office if that record is itself incomplete through the failure to record the substance of interviews.

It is the responsibility of the applicant or the attorney or agent to make the substance of an interview of record in the application file, unless the examiner indicates he or she will do so. It is the examiner's responsibility to see that such a record is made and to correct material inaccuracies which bear directly on the question of patentability.

Examiners must complete an Interview Summary Form for each interview held where a matter of substance has been discussed during the interview by checking the appropriate boxes and filling in the blanks. Discussions regarding only procedural matters, directed solely to restriction requirements for which interview recordation is otherwise provided for in Section 812.01 of the Manual of Patent Examining Procedure, or pointing out typographical errors or unreadable script in Office actions or the like, are excluded from the interview recordation procedures below. Where the substance of an interview is completely recorded in an Examiners Amendment, no separate Interview Summary Record is required.

The Interview Summary Form shall be given an appropriate Paper No., placed in the right hand portion of the file, and listed on the "Contents" section of the file wrapper. In a personal interview, a duplicate of the Form is given to the applicant (or attorney or agent) at the conclusion of the interview. In the case of a telephone or video-conference interview, the copy is mailed to the applicant's correspondence address either with or prior to the next official communication. If additional correspondence from the examiner is not likely before an allowance or if other circumstances dictate, the Form should be mailed promptly after the interview rather than with the next official communication.

The Form provides for recordation of the following information:

- Application Number (Series Code and Serial Number)
- Name of applicant
- Name of examiner
- Date of interview
- Type of interview (telephonic, video-conference, or personal)
- Name of participant(s) (applicant, attorney or agent, examiner, other PTO personnel, etc.)
- An indication whether or not an exhibit was shown or a demonstration conducted
- An identification of the specific prior art discussed
- An indication whether an agreement was reached and if so, a description of the general nature of the agreement (may be by attachment of a copy of amendments or claims agreed as being allowable). Note: Agreement as to allowability is tentative and does not restrict further action by the examiner to the contrary.
- The signature of the examiner who conducted the interview (if Form is not an attachment to a signed Office action)

It is desirable that the examiner orally remind the applicant of his or her obligation to record the substance of the interview of each case. It should be noted, however, that the Interview Summary Form will not normally be considered a complete and proper recordation of the interview unless it includes, or is supplemented by the applicant or the examiner to include, all of the applicable items required below concerning the substance of the interview.

A complete and proper recordation of the substance of any interview should include at least the following applicable items:

- 1) A brief description of the nature of any exhibit shown or any demonstration conducted,
- 2) an identification of the claims discussed,
- 3) an identification of the specific prior art discussed,
- 4) an identification of the principal proposed amendments of a substantive nature discussed, unless these are already described on the Interview Summary Form completed by the Examiner,
- 5) a brief identification of the general thrust of the principal arguments presented to the examiner,
(The identification of arguments need not be lengthy or elaborate. A verbatim or highly detailed description of the arguments is not required. The identification of the arguments is sufficient if the general nature or thrust of the principal arguments made to the examiner can be understood in the context of the application file. Of course, the applicant may desire to emphasize and fully describe those arguments which he or she feels were or might be persuasive to the examiner.)
- 6) a general indication of any other pertinent matters discussed, and
- 7) if appropriate, the general results or outcome of the interview unless already described in the Interview Summary Form completed by the examiner.

Examiners are expected to carefully review the applicant's record of the substance of an interview. If the record is not complete and accurate, the examiner will give the applicant an extendable one month time period to correct the record.

Examiner to Check for Accuracy

If the claims are allowable for other reasons of record, the examiner should send a letter setting forth the examiner's version of the statement attributed to him or her. If the record is complete and accurate, the examiner should place the indication, "Interview Record OK" on the paper recording the substance of the interview along with the date and the examiner's initials.

EXAMINER'S AMENDMENT

An examiner's amendment to the record appears below. Should the changes and/or additions be unacceptable to applicant, an amendment may be filed as provided by 37 CFR 1.312. To ensure consideration of such an amendment, it MUST be submitted no later than the payment of the issue fee.

Authorization for this examiner's amendment was given in a telephone interview with Gary D. Yacura (Reg. No. 35,416) on May 24, 2006.

The application has been amended as follows:

1. A method of selecting a portion of a 3D volume, the portion of the volume containing a feature of interest, a view of the volume being displayed on a display, the view being generated from a volume-defining array containing data corresponding to properties at points within a coordinate system containing the volume, the volume-defining array being stored by an image processing system, and a user having a user interface for interacting with the image processing system, the method comprising the steps of:

a) determining a seed point in the volume defining array in response to the selection by the user of a pixel in the view of the volume being displayed; and

b) growing a region in three-dimensions about said seed point, wherein ~~the growth of said region is responsive to input from the user interface, such that manipulation of the user interface selectively determines the extent of the growth of said region;~~ said growing said region includes iteratively growing said region

and the number of iterations performed is responsive to the user interface, such that manipulation of the user interface selectively determines the extent of the growth of said region.

2. The method defined in claim 1, wherein said step of growing said region comprises an iterative series of steps, the steps comprising:

evaluating an untested point in the volume defining array adjacent to a boundary member point to determine if the untested point is a member of said region, said boundary member point being said seed point for a first iteration and said boundary member point being a member point at the boundary of said region for subsequent iterations;

adding to said region the untested points that are determined to be members of said region;

excluding from said region the untested points that are determined not to be members of said region; and

visually distinguishing, on the view of the volume being displayed, the points determined to be members of said region from other points;

~~wherein the number of iterations performed is responsive to the user interface, such that manipulation of the user interface selectively determines the extent of the growth of said region.~~

18. An image processing system for selecting a portion of a 3D volume, the portion of the volume containing a feature of interest, a view of the volume being displayed on a display, the view being generated from a volume-defining array containing data corresponding to properties

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at points within a coordinate system containing the volume, the volume-defining array being stored by the image processing system, a seed point in the volume defining array being determined based upon the selection by a user of a pixel in the view of the volume being displayed, the image processing system comprising:

- (a) a user interface for selecting said pixel and for selectively determining the extent of the growth of a region; and
- (b) region growing module for growing said region in three-dimensions about the seed point, said region growing module increasing and decreasing the growth of said region performed in response to manipulation of said user interface;

wherein the view of the volume being displayed shows the size of said region; and
said region growing module performs an iterative series of steps, each iteration expanding the growth of said region, and the number of iterations performed is responsive to the user interface, such that manipulation of the user interface selectively determines the extent of the growth of said region.

27. Cancelled

28. A computer program product comprising a computer readable medium carrying program means for selecting a portion of a volume, the portion of the volume containing a feature of interest, a view of the volume being displayed on a display, the view being generated from a volume-defining array containing data corresponding to properties at points within a coordinate

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system containing the volume, the volume-defining array being stored by an image processing system, and a user having a user interface for interaction with the image processing system, the computer program product comprising:

code means for determining a seed point in the volume defining array in response to the selection by the user of a pixel in the view of the volume being displayed;
and

code means for growing a region about said seed point, wherein the growth of said region is responsive to the user interface, such that manipulation of the user interface selectively determines the extent of the growth of said region; and wherein said growing said region includes iteratively growing said region into adjacent voxels meeting member criteria, and wherein a number of iterations is selectively adjusted by the user through the user interface.

30. Cancelled.

31. The method defined in claim ~~30~~ 28, further including a step of displaying, at each iteration, the extent of the growth of said region.